

#2

OIKE

## RAW SEQUENCE LISTING

DATE: 04/27/2001

PATENT APPLICATION: US/09/835,297

TIME: 12:23:45

Input Set : A:\SEQLIST.txt

Output Set: N:\CRF3\04272001\I835297.raw

ENTERED

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3 <110> APPLICANT: Bluestone, Jeffrey
4     Collins, Mary
5     Griffin, Mathew
6     Kranz, David
8 <120> TITLE OF INVENTION: SURFACE-BOUND ANTIGEN BINDING PORTIONS OF ANTIBODIES
9     THAT BIND TO CTLA4 AND USES THEREFOR
11 <130> FILE REFERENCE: GNN-014CP
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/835,297
C--> 14 <141> CURRENT FILING DATE: 2001-04-12
16 <150> PRIOR APPLICATION NUMBER: 60/196,851
17 <151> PRIOR FILING DATE: 2000-04-12
19 <160> NUMBER OF SEQ ID NOS: 4
21 <170> SOFTWARE: PatentIn Ver. 2.0
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 672
25 <212> TYPE: DNA
26 <213> ORGANISM: Homo sapiens
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31 gccacgcctg ctgtgtgact ggccagcagc cgaggcacgc ccagctttgt gtgtgagtat 180
32 gcatctccag gcaaagccac tgaggtccgg gtgacagtgc ttccggcaggc tgacagccag 240
33 gtgactgaag tctgtgcggc aacctacatg acgggggaatg agttgacctt cctagatgat 300
34 tccatctgca cgggcacctc cagtggaaat caagtgaacc tcactatcca aggactgagg 360
35 gccatggaca cgggactcta catctgcaag gtggagctca tgtaccacc gccatactac 420
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37 gacttctctc tctggatcct tgcagcagtt agttcggggt tgttttttta tagctttctc 540
38 ctcacagctg tttctttgag caaatgcta aagaaaagaa gccctcttac aacaggggtc 600
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40 cccatcaatt ga                                     672
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43 <211> LENGTH: 223
44 <212> TYPE: PRT
45 <213> ORGANISM: Homo sapiens
47 <400> SEQUENCE: 2
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51 Thr Arg Thr Trp Pro Cys Thr Leu Leu Phe Phe Leu Leu Phe Ile Pro
52          20          25          30
54 Val Phe Cys Lys Ala Met His Val Ala Gln Pro Ala Val Val Leu Ala
55          35          40          45
57 Ser Ser Arg Gly Ile Ala Ser Phe Val Cys Glu Tyr Ala Ser Pro Gly
58          50          55          60
60 Lys Ala Thr Glu Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln
61 65          70          75          80
63 Val Thr Glu Val Cys Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr
64          85          90          95

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66 Phe Leu Asp Asp Ser Ile Cys Thr Gly Thr Ser Ser Gly Asn Gln Val
67          100                      105                      110
69 Asn Leu Thr Ile Gln Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile
70          115                      120                      125
72 Cys Lys Val Glu Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly
73          130                      135                      140
75 Asn Gly Ala Gln Ile Tyr Val Ile Asp Pro Glu Pro Cys Pro Asp Ser
76 145                      150                      155                      160
78 Asp Phe Leu Leu Trp Ile Leu Ala Ala Val Ser Ser Gly Leu Phe Phe
79          165                      170                      175
81 Tyr Ser Phe Leu Leu Thr Ala Val Ser Leu Ser Lys Met Leu Lys Lys
82          180                      185                      190
84 Arg Ser Pro Leu Thr Thr Gly Val Tyr Val Lys Met Pro Pro Thr Glu
85          195                      200                      205
87 Pro Glu Cys Glu Lys Gln Phe Gln Pro Tyr Phe Ile Pro Ile Asn
88          210                      215                      220

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91 &lt;210&gt; SEQ ID NO: 3

92 &lt;211&gt; LENGTH: 3806

93 &lt;212&gt; TYPE: DNA

94 &lt;213&gt; ORGANISM: Homo sapiens

96 &lt;400&gt; SEQUENCE: 3

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98 tttagtgcc ttgatcatgt gccctaagg gatggtggcg gtggtggtgg ccgtggatga 120
99 cggagactct caggccttgg cagggtgcgtc tttagcttcc cctcacactt cgggttcttc 180
100 ggggaggagg ggctggaacc ctagcccatc gtcaggacaa agatgctcag gctgctcttg 240
101 gctctcaact tattcccttc aattcaagta acaggaaaca agattttggt gaagcagtcg 300
102 cccatgcttg tagcgtacga caatgcggtc aaccttagct gcaagtattc ctacaatctc 360
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104 gttgtatatg ggaattactc ccagcagctt cagggttact caaaaacggg gttcaactgt 480
105 gatgggaaat tgggcaatga atcagtgaca ttctacctcc agaatttgta tgtaaccaaa 540
106 acagatatatt acttctgcaa aattgaagtt atgtatcttc ctcttacct agacaatgag 600
107 aagagcaatg gaaccattat ccatgtgaaa gggaaacacc ttgtccaag tcccctattt 660
108 cccggacctt ctaagccctt ttgggtgctg gtggtggttg gtggagtctt ggcttgctat 720
109 agcttgctag taacagtggc ctttattatt ttctgggtga ggagtaagag gaggcagctc 780
110 ctgcacagtg actacatgaa catgactccc cgcgcgcccg ggcccacccg caagcattac 840
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112 agaagccagc cggctggcag cccccatctg ctcaatatca ctgctctgga taggaaatga 960
113 ccgccatctc cagccggcca cctcaggccc ctgttggggc accaatgcca atttttctcg 1020
114 agtgactaga ccaaatatca agatcatttt gagactctga aatgaagtaa aagagatttc 1080
115 ctgtgacagg ccaagtctta cagtgccatg gccacattc caacttacca tgtacttagt 1140
116 gacttgactg agaagttagg gtagaaaaca aaaagggagt ggattctggg agcctcttcc 1200
117 ctttctcact cacctgcaca tctcagtcac gcaaagtgtg gtatccacag acattttagt 1260
118 tgcagaagaa aggctaggaa atcattcctt ttggttaaat ggggtgttaa tcttttggtt 1320
119 agtgggttaa acggggtaag ttagagttag gggagggata ggaagacata tttaaaacc 1380
120 attaaaacac tgtctccac tcatgaaatg agccacgtag ttctatttta atgctgtttt 1440
121 ccttttagttt agaaatacat agacattgtc ttttatgaat tctgatcata tttagtcatt 1500
122 ttgaccaaat gagggatttg gtcaaattag ggattccctc aaagcaatat caggtaaacc 1560
123 aagttgcttt cctcactccc tgtcatgaga cttcagtggt aatgttcaca atatactttc 1620
124 gaaagaataa aatagttctc ctacatgaag aaagaatatg tcaggaaata aggtcacttt 1680

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125 atgtcaaaat tattttgagta ctatggggacc tggcgcagtg gctcatgctt gtaatcccag 1740
126 cacttttggga ggccgaggtg ggcagatcac ttgagatcag gaccagcctg gtcaagatgg 1800
127 tgaaactccg tctgtactaa aaatacaaaa tttagcttgg cctgggtggca ggcacctgta 1860
128 atcccagctg cccaggaggc tgaggcatga gaatcgcttg aacctggcag gcggagggtg 1920
129 cagtgagccg agatagtgcc acagctctcc agcctgggag acagagttag actccatctc 1980
130 aaacaacaac aacaacaaca acaacaacaa caaaccacaa aattatttga gtactgtgaa 2040
131 ggattatttg tctaacagtt cattccaatc agaccaggta ggagctttcc tgtttcatat 2100
132 gtttcagggt tgcacagttg gtctctttaa tgtcgggtgt gagatccaaa gtgggttgtg 2160
133 gaaagagcgt ccataggaga agtgagaata ctgtgaaaaa gggatgttag cattcattag 2220
134 agtatgagga tgagtcccaa gaaggttctt tgggaaggagg acgaatagaa tggagtaatg 2280
135 aaattcttgc catgtgctga ggagatagcc agcattagggt gacaatcttc cagaagtggg 2340
136 caggcagaag gtgccctggt gagagctcct ttacagggac tttatgtggg ttagggctca 2400
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138 gtattttgga atgtgtcttt tgaagagagc atcagagttc ttaagggact gggtaaggcc 2520
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141 tcagggtgtg aaggagctta ggttttagag gcacgtagac ttggttcaag tctcgtagt 2700
142 agttgaatag cctcaggcaa gtcactgccc acctaatagtg atggttcttc aactataaaa 2760
143 tggagataat ggttacaaat gtctcttctt atagtataat ctccataagg gcatggccca 2820
144 agtctgtctt tgactctgcc tatccctgac atttagtagc atgcccagca tacaatgtta 2880
145 gctattggta ttattgccat atagataaat tatgtataaa aattaaactg ggcaatagcc 2940
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147 aatatgagga ccttttaact tccatcattt tctgtttct tgaaatagtt tatcttgtaa 3060
148 tgaaatataa ggcacctccc acttttatgt atagaaagag gtcttttaat ttttttttaa 3120
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152 cttcttgggc acacagagtt ctccaatcca agttatcaga ttgtatttga aaatgacaga 3360
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156 acagggaagt ccgttttcac tattagtatg aaccaagaaa tggttcaaaa acagtggtag 3600
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162 &lt;210&gt; SEQ ID NO: 4

163 &lt;211&gt; LENGTH: 220

164 &lt;212&gt; TYPE: PRT

165 &lt;213&gt; ORGANISM: Homo sapiens

167 &lt;400&gt; SEQUENCE: 4

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169 1 5 10 15

171 Thr Gly Asn Lys Ile Leu Val Lys Gln Ser Pro Met Leu Val Ala Tyr

172 20 25 30

174 Asp Asn Ala Val Asn Leu Ser Cys Lys Tyr Ser Tyr Asn Leu Phe Ser

175 35 40 45

177 Arg Glu Phe Arg Ala Ser Leu His Lys Gly Leu Asp Ser Ala Val Glu

178 50 55 60

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TIME: 12:23:46

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184 85 90 95
186 Phe Tyr Leu Gln Asn Leu Tyr Val Asn Gln Thr Asp Ile Tyr Phe Cys
187 100 105 110
189 Lys Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys Ser
190 115 120 125
192 Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser Pro
193 130 135 140
195 Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val Gly
196 145 150 155 160
198 Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile
199 165 170 175
201 Phe Trp Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met
202 180 185 190
204 Asn Met Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro
205 195 200 205
207 Tyr Ala Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser
208 210 215 220

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/835,297

DATE: 04/27/2001

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L:13 M:270 C: Current Application Number differs, Replaced Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date